

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated April 15, 2009. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1, 2, 6-8, 12, 13, and 17-22, are pending in this application, but previously rejected on prior art grounds. Following entry of the above amendments, claims 1, 2, 6-8, 12, 13, 17-22 will stand for consideration, wherein claims 1, 7, 17, 18, and 22 have been amended. It is respectfully submitted that all pending claims be reconsidered and found allowable based on the following.

Formal Rejections: 35 U.S.C. § 103

Claims 1, 2, 6-8, 12, 13, and 17-22

Claims 1, 2, 6-8, 12, 13, and 17-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Jenwatanavet, U.S. Patent No. 6,894,647 (hereinafter "Jenwatanavet").

Contrary to the rejection, Applicants respectfully submit that the present invention is not in any way anticipated let alone obvious in view of Jenwatanavet. The present invention as recited in the independent claims 1, 7, 17, 18, and 22 includes an antenna which has a plurality of transmission lines and therefore a plurality of branching points. As currently recited, the number of transmission lines is "equal to or more than four". It will be apparent to one of ordinary skill in the art, and in accordance with the present disclosure, that since the present antenna radiates electromagnetic waves of a plurality of frequencies, the antenna has necessarily four transmission lines or more. In order to more clearly and thus affirmatively recite this aspect, by this Amendment, the independent claims have been amended as mentioned above. Subject matter basis support for the amendments made to claims 1, 7, 17, 18, and 22 can be found in the specification as filed and therefore the claim amendments do not constitute new matter.

It will be clear upon careful examination of Jenwatanavet that its device does not have the claimed plurality of transmission lines. The antenna of Jenwatanavet has the open

radiator 506, the shorted radiator (“L” shaped) 512 and the feed 518 as shown in Fig. 5a. The first end 508 of the open radiator 506 is connected to the first end 514 of the shorted radiator 512, and this connection point forms a branching point. An end of the feed 518 is connected to the connection point, that is, the branching point (Fig. 5a, col. 5, lines 32-54 of Jenwatanavet).

A boundary between transmission lines (radiators) forms a branching point, while a bent point does not form a boundary between transmission lines. That is, a bent point of “L” shape does not form a branching point. In Fig. 2 of Jenwatanavet, the shorted radiator 214 has the first section 254, the second section 258, and a bent point of “L” shape. Thus, the antenna of Jenwatanavet has only a single branching point.

It must be emphasized that contrary to the Office Action which states that each of 514, 516, 518 are transmission lines, Jenwatanavet clearly discloses that 514 denotes the first end of the short “L” shaped radiator 512, 516 denotes the second end of the short “L” shaped radiator 512, and 518 denotes the feed. Therefore, contrary to the interpretation stated in the Office Action, each of 516 and 518 is not a transmission line.

Furthermore, contrary to the interpretation of Jenwatanavet in the Office Action, the corner that the Examiner indicates as a second branching point is not a branching point but a bent point of “L” shape. Thus, the Office Action misstates the invention of Jenwatanavet.

Applicants respectfully submit that in view of the aforementioned discussion of the device in Jenwatanavet, it will be clear that the present invention is not in any way anticipated by let alone obvious in view of Jenwatanavet as its device fails to include the claimed transmission lines in addition to the other elements which comprise the claimed invention. Based on the foregoing, Applicants respectfully submit that independent claims 1, 7, 17, 18, and 22 are not obvious in view of Jenwatanavet under 35 U.S.C. § 103(a). Further, Applicants respectfully submit that the dependent claims 2, 6, 8, 12, 13, and 19-21, dependent from a respective one of the independent claims, are further not obvious in view of Jenwatanavet for at least the same reasons as the independent claims and further for reciting additional elements which in combination with the subject matter of the independent claims presents additional novel and non-obvious subject matter of the prior art.

In view of the foregoing, Applicants respectfully request that the rejection to claims 1, 2, 6-8, 12, 13, and 17-22 be withdrawn.

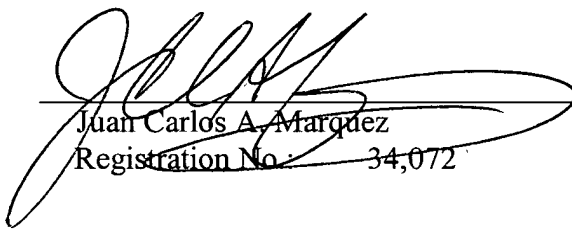
Conclusion

In light of the Amendments and Remarks, Applicants respectfully request early and favorable action with regard to the present application, and a Notice of Allowance for all pending claims is earnestly solicited.

Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and telephone number indicated below.

Respectfully submitted,

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